<u>REMARKS</u>

<u>INTRODUCTION</u>:

In accordance with the foregoing, claims 1-4 have been amended, and claims 5-18 have been added.   No new matter is being presented, and approval and entry of the foregoing amendments and new claims are respectfully requested.

Claims 1-18 are pending and under consideration. Reconsideration is requested.

<u>CLAIM FOR PRIORITY</u>:

In the Office Action at page 2, the Examiner states that a claim for foreign priority has been improperly made for applications filed in Korea on February 11, 1998 and December 30, 1997. As a point of clarification, it is noted that the Declaration as filed lists the applications in question, but does not claim foreign priority benefit such that no claim for foreign priority has been made for the applications as indicated therein.

<u>JUDICIALLY CREATED DOCTRINE OF OBVIOUSNESS TYPE DOUBLE PATENTING</u>:

On pages 2-3 of the Office Action, the Examiner rejects claims 1, 2, and 4 under the judicially created doctrine of obviousness-type double patenting in view of U.S. Patent No. 6,631,110. Since claims 1, 2 and 4 of the instant application have not yet been indicated as allowable and in view of the claims newly presented, it is believed that any submission of a Terminal Disclaimer or arguments as to the non-obvious nature of the claims would be premature. As such, it is respectfully requested that the applicant be allowed to address any obviousness-type double patenting issues remaining once the rejection of the claims under 35 U.S.C. §102 is resolved and that the rejection be reconsidered in light of the claims presented above.

<u>REJECTION UNDER 35 U.S.C. §102</u>:

In the Office Action at page 4, the Examiner rejects claims 1 and 2 under 35 U.S.C. §102 in view of <u>Hara</u> (U.S. Patent No. 6,044,055). This rejection is respectfully traversed and reconsideration is requested.

By way of review, <u>Hara</u> discloses a recording apparatus which adjusts a waveform of modulated data, which is being recorded using a modified constant angular velocity (MCAV) recording method, according to whether the data is to be recorded in a high speed or a low speed zone. Specifically, <u>Hara</u> discloses detecting in which of 50 zones the data is to be recorded, and determining delays x and y for each pulse of the modulated data according to the

location of the detected zone. In this way, the linear densities are controlled to be identical in inner and outer zones. Further, the pulse widths are varied as shown in FIGs. 6C, 6D, and 12J, and are thus changed according to the delays x, y. (Col. 5, lines 12-34, col. 10, lines 39-53, col. 11, lines 1-7). However, while the pulse widths are being varied according to the delays x, y, since the delays x, y vary according to the recording position, there is no suggestion that the pulse widths and/or the delays x, y are varied according to lengths of marks and spaces or that the RAM 15 stores values of the pulse widths varying according to stored values of the mark/spaces sizes.

Additionally and as noted in the interview, <u>Hara</u> teaches the use of delays x, y which are used to generate the delayed pulses and the size of elements of the waveform. However, <u>Hara</u> does not suggest using data instead of or in addition to the delays x, y specifying the width of the pulses in the resulting waveform, or that such data is included in a table or is otherwise stored as opposed to calculated. Further, there is no suggestion that the RAM 15 necessarily stores a table of such lengths for use in varying the pulse widths such that there is insufficient evidence that the RAM 15 provides such a functionality under principles of inherency.

As such, it is respectfully submitted that <u>Hara</u> does not disclose or suggest, among other features, "the grouping table storing width data of the first and/or last pulses of the write pulse waveform varying according to corresponding stored values of lengths of marks to be written" as recited in claim 1.

Moreover, even assuming arguendo that the lengths are stored, it is respectfully submitted that <u>Hara</u> does not suggest that the varied pulse is according to the mark and only one of the spaces. As such, it is respectfully submitted that <u>Hara</u> does not disclose or suggest, among other features, that "the generated adaptive write pulse waveform is generated without regard for a trailing space of a present mark being written using the adaptive write pulse waveform" as recited in claim 1.

Additionally, to the extent that the lengths are stored in the RAM 15, there is no suggestion that the magnitudes are arrayed in groups according to magnitudes of marks and/or spaces. As such, it is respectfully submitted that <u>Hara</u> does not disclose or suggest that "the grouping table stores the width data of the first and/or last pulses for the write pulse waveform by grouping a length of a present mark and a length of a leading space of the present mark into corresponding pulse groups according to corresponding lengths of the present mark and leading space" as recited in claim 2.

<u>REJECTION UNDER 35 U.S.C. §103</u>:

In the Office Action at pages 5-6, the Examiner rejects claim 3 under 35 U.S.C. §103 in view of <u>Hara</u> and <u>Dil</u> (U.S. Patent No. 4,423,502). The rejection is respectfully traversed and reconsideration is requested.

On page 3 of the Office Action, the Examiner asserts that the delays x, y and RAM 15 of <u>Hara</u> disclose a grouping table having width data. However, as noted above in regard to the rejection of claims 1 and 2, <u>Hara</u> discloses delays x, y which vary according to the zone in which the data is to be written. As such, any data used in the RAM 15 to calculate the pulse using the associated delays x, y is based upon the zone and does not relate the delays x, y to the mark being written and/or a space adjacent the mark, and further does not relate the delays x, y or pulse data according to groupings. As such, it is respectfully submitted that <u>Hara</u> does not disclose or suggest that "controlling the write pulse waveform based on a grouping table having width data grouped in pulse groups which group the first and/or last pulses of the write pulse waveform by corresponding lengths of a present mark of input data and a leading space of the present mark to generate an adaptive write pulse waveform" as recited in claim 3. Since <u>Dil</u> is not relied upon as curing this deficiency, it is respectfully submitted that the combination does not disclose the features of claim 3.

In the Office Action at pages 6-7, the Examiner rejects claim 4 under 35 U.S.C. §103 in view of <u>Hara</u> and <u>Nishiuchi et al.</u> (U.S. Patent No. 4,423,502). The rejection is respectfully traversed and reconsideration is requested.

As similarly noted above in relation to the rejections of claims 1-3, <u>Hara</u> discloses using delays x, y having values varying according to a recording zone and does not suggest the RAM 15 or other element storing a table relating pulse widths with magnitudes of marks to be written or spaces adjacent the marks. As such, it is respectfully submitted that <u>Hara</u> does not disclose or suggest "controlling the write pulse waveform based on a grouping table to generate an adaptive write pulse waveform, the grouping table storing width data of the first and/or last pulses of the write pulse waveform grouped in corresponding pulse groups according to lengths of marks to be written and/or lengths of spaces adjacent to the marks to be written" as recited in claim 4. Since <u>Nishiuchi et al.</u> is not relied upon as disclosing such a feature, it is respectfully submitted that the combination does not disclose or suggest the invention of claim 4.

<u>PATENTABILITY OF NEW CLAIMS</u>:

Claims 5-18 are deemed patentable due at least to their depending from corresponding claims 1, 3, and 4.
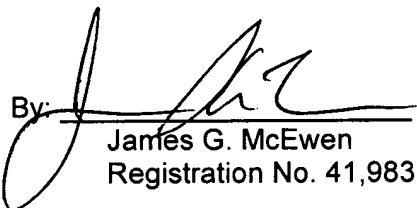
CONCLUSION:

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. And further, it is respectfully submitted that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited.

If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such issues.

If there are any additional fees associated with the filing of this Amendment, please charge the same to our Deposit Account No. 503333.

Respectfully submitted,

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